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McKENZIE LAKE

Area Structure Plan and Supporting Information

THE CITY OF CALGARY
PLANNING & BUILDING DEPARTMENT

September 1989

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Area Structure Plan

MCKENZIE LAKE AREA STRUCTURE PLAN
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PART I - THE AREA STRUCTURE PLAN

1.1 PLANNING AREA (Map 1)

McKenzie Lake is an area approximately 487 hectares (1,205 acres), located north of Marquis of Lorne Trail and south of 130 Avenue S.E., between the Deerfoot Trail and the Bow River. This area was annexed to the City in 1979.

1.2 PLANNING CONCEPT

McKenzie Lake is intended as a residential area accommodating between 13,500 and 16,000 people, based upon an anticipated density in the range of 12 to 15 units per hectare (5 to 6 units per acre).

The area will be provided with an open space system for playgrounds and schools, including a large, private recreation site intended for a lake. Another site, 81 hectares (200 acres), adjacent to the Bow River and opposite Fish Creek Provincial Park may also be developed in the future by the Province for recreational use.

Commercial uses are to be limited to neighbourhood shopping centres. Provision for both regional and sector shopping centers has been made in the East McKenzie A.S.P. for the area further east.

Access to the study area will be from Marquis of Lorne Trail to the south and the Deerfoot Trail to the east. Marquis of Lorne Trail currently provides a temporary at-grade access, which will be replaced in the future by a partial interchange or an overpass connecting Lake McKenzie to possible development to the south. Access from the Deerfoot Trail will be at the northerly end of McKenzie Boulevard, and at 130 Avenue S.E. These roads will have full interchanges at the Deerfoot Trail, and will be extended into East McKenzie.

A possible future L.R.T. alignment is located along the south side of Marquis of Lorne Trail, immediately outside the study area. The station site will be accessible from the study area through the southerly extension of McKenzie Lake Boulevard.

McKENZIE LAKE

MAP NO. 1

TITLE
LOCATION PLAN

STUDY AREA

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0 2 4km

2

1.3 PLANNING POLICIES (Map 2)

1.3.1 Residential Areas

(1) The predominant form of housing will be single family. At the discretion of the developer, or as required by the Approving Authority, provision will also be made for multiple family sites.

(2) The location of multiple family development, to the extent required, will be determined at the outline plan stage. As shown on Map 2, possible sites are on McKenzie Lake Boulevard near the access points to the Deerfoot trail and Marquis of Lorne Trail.

(3) The overall residential density is anticipated to be between 12 and 15 units per gross hectare (5 to 6 units per acre). Outline plans for densities above or below this range will be considered for approval in accordance with the density guidelines in the Calgary General Municipal Plan.

1.3.2 Commercial Areas

(1) Provision has been made in this plan for two neighbourhood shopping centres on McKenzie Lake Boulevard. One site will be located along McKenzie Boulevard near the access to the Deerfoot Trail, and the other is in the existing McKenzie Lake community and has been partly developed.

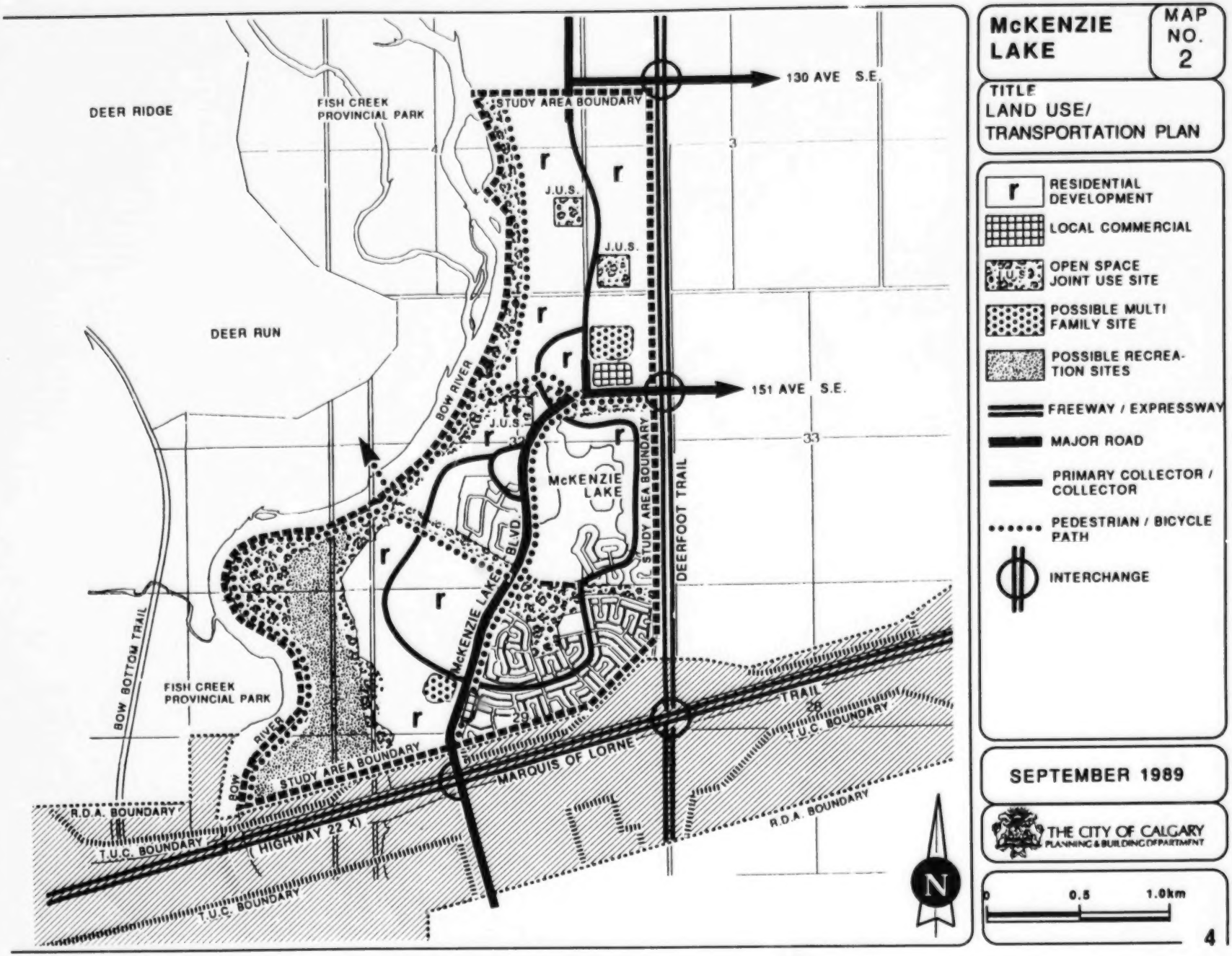
(2) Additional local shopping centres may be provided in the study area with the location and size to be determined at the outline plan stage.

1.3.3 Open Space

The open space system in McKenzie Lake shall be provided for as follows:

(1) Four joint use sites are required for possible future schools and playfields. The largest of these is 10.9 hectares (27 acres), located in the existing McKenzie Lake development and is intended for an elementary school, junior high school, and a community association facility. Two other sites, 4.86 hectares (12 acres) and 3.6 hectares (9 acres) are required for future elementary/junior high schools; and another site, 2.4 hectares (6 acres), is required for a future elementary school.

(2) A private recreation site, possibly including a lake, will be a major open space feature in the southern portion of the study area. The site is 25.3 hectares (62.5 acres) and is already designated for recreational use.


DEER RIDGE
FISH CREEK PROVINCIAL PARK
STUDY AREA BOUNDARY
130 AVE S.E.
J.U.S.
DEER RUN
BOW RIVER
151 AVE S.E.
McKENZIE LAKE
McKENZIE LAKE BLVD
DEERFOOT TRAIL
BOW BOTTOM TRAIL
FISH CREEK PROVINCIAL PARK
MARQUIS OF LORNE
R.D.A. BOUNDARY
T.U.C. BOUNDARY
(HIGHWAY 22 X)
N
McKENZIE LAKE
MAP NO. 2
TITLE
LAND USE/ TRANSPORTATION PLAN
RESIDENTIAL DEVELOPMENT
LOCAL COMMERCIAL
OPEN SPACE JOINT USE SITE
POSSIBLE MULTI FAMILY SITE
POSSIBLE RECREATION SITES
FREEWAY / EXPRESSWAY
MAJOR ROAD
PRIMARY COLLECTOR / COLLECTOR
PEDESTRIAN / BICYCLE PATH
INTERCHANGE
SEPTEMBER 1989
THE CITY OF CALGARY
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1.0km

(3) A regional pedestrian/cyclist pathway system will connect the McKenzie Lake study area to adjacent communities, Fish Creek Park, the Bow River valley pedestrian/cyclist pathway, and the possible future L.R.T. station to the south.

(4) Tot lots, feature parks and local pedestrian/cyclist pathways shall be provided as appropriate throughout Lake McKenzie.

The open space system shown on Map 2 is conceptual only. The size, configuration, and location of the open space elements, which have not been already designated for this use, are to be determined at the outline plan stage.

1.3.4 Roads

The roadway network intended to serve McKenzie Lake is shown conceptually on Map 2. It provides the basis for the more detailed outline plans which must satisfy the following requirements:

(1) The alignment of the major roads shall be approximately as shown to accommodate the traffic volumes resulting from the development of the area.

(2) The concept of internal roadway loops shall be maintained to accommodate bus service. Apart from this requirement, the configuration of the primary collector/collector roads is flexible and can be modified.

1.3.5 Bus Service

(1) The internal roadway loops and possibly McKenzie Boulevard are to be utilized as bus routes.

(2) To provide adequate bus service, all residential areas should be within a walking distance of 450 metres (1476 feet) from the bus route.

(3) Initially, the bus route is planned to connect to the Anderson L.R.T. station. Should the south L.R.T. line be extended, or the southeast L.R.T. line be constructed, the bus route will connect to the nearest L.R.T. station.

1.3.6 L.R.T.

There are two options for providing the McKenzie Lake A.S.P. area with access to L.R.T.:

(1) The south L.R.T. line can be extended from Anderson Station to Midnapore and Shawnessy, then in the easterly direction along the south side of Marquis of Lorne Trail to Chaparral and McKenzie Lake. The L.R.T. station will be located to the southeast of the intersection of McKenzie Lake Boulevard and Marquis of Lorne Trail, as shown on Map 5.

The Transportation Improvement Study Update, approved by City Council in 1986, indicates that the extension of the L.R.T. line from Anderson Road station to Midnapore is proposed for construction between 1991 and 1994. The location of the extension to Shawnessy was approved by Council in the South L.R.T. Extension Functional Study, 1982.

(2) An additional L.R.T. line may be constructed to serve the southeast sector of the city. South of Glenmore Trail, this line may be located along 52 Street S.E. The nearest L.R.T. station to the study area will be located in East McKenzie.

Further studies are required to determine which of these alignments, if any, is the most appropriate for long term planning.

1.3.7 The Restricted Development Area

The purpose of the Restricted Development Area (R.D.A.) regulation is to protect the rights-of-way of a future ring road and major utility corridor. Lands in the study area within roughly 150 metres (492 feet) from Marquis of Lorne Trail were included initially in the R.D.A.

As a result of a more recent assessment of rights-of-way requirements, a new boundary has been defined, which is now referred to as the Transportation and Utility Corridor (T.U.C.).

- In approving Outline Plans for McKenzie Lake, the Approving Authority shall ensure proper pedestrian and vehicular access to the R.D.A. lands. This access is required for the installation and maintenance of utilities, as well as possible recreational uses on surplus lands.

1.3.8 Utilities

The existing utilities in the study area can be extended to service future development south of the 151 Avenue S.E. alignment. The balance of the study area will require the installation of additional storm water and sanitary trunks.

Further information on servicing is provided in the supporting information portion of this document.

1.3.9 Sequence of Development

The sequence of development in the study area will generally follow the extension of utilities and roads.

Supporting Information

SUPPORTING INFORMATION TO THE AREA STRUCTURE PLAN

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PART II - SUPPORTING INFORMATION

2.1 PLANNING AREA

2.1.1 Location and Background (Map 1)

McKenzie Lake is located in the southeast portion of the city approximately 16 kilometers (10 miles) from the city centre. To the north is Barlow A.S.P. area, which includes Douglasdale Estates, and to the east East McKenzie A.S.P. area, which is undeveloped. The Homesteads land is located to the south, which is also undeveloped and no plans have been prepared for this area. To the west is the Bow River and Fish Creek Provincial Park.

2.1.2 Natural Features (Map 3)

The study area includes two basic geographic areas, the Bow River valley bottom and the upper plateau. These two areas are separated by the Bow River valley escarpment, which is a significant natural feature, and is oriented in a north-south direction. The escarpment is much more pronounced in the northern half of the study area, reaching 30 metres (98 feet) in height. In most of the southern half, the escarpment is 15 metres (49 feet) or less, except near Marquis of Lorne Trail where it reaches 38 metres (125 feet).

The Bow River valley bottom is the area below the escarpment. The entire area is in the floodway or floodplain. The portion adjacent to the Bow River is covered by natural vegetation, such as cottonwood and native prairie bushes.

The upper plateau amounts to roughly 68 percent of the study area and most of it is flat. Near the escarpment, the terrain slopes in the westerly direction.

Development on the sloping portion of the study area and along the escarpment will be exposed to views of the Bow River, the Bow River valley and the Fish Creek Provincial Park.

2.1.3 Historical Resources (Map 3)

An initial appraisal of the study area, undertaken in 1979, suggests that a number of archaeological sites exist in the study area. A prehistoric site was identified on the rim of the Bow River valley, and the required historical impact assessment has been recently submitted to Alberta Culture.

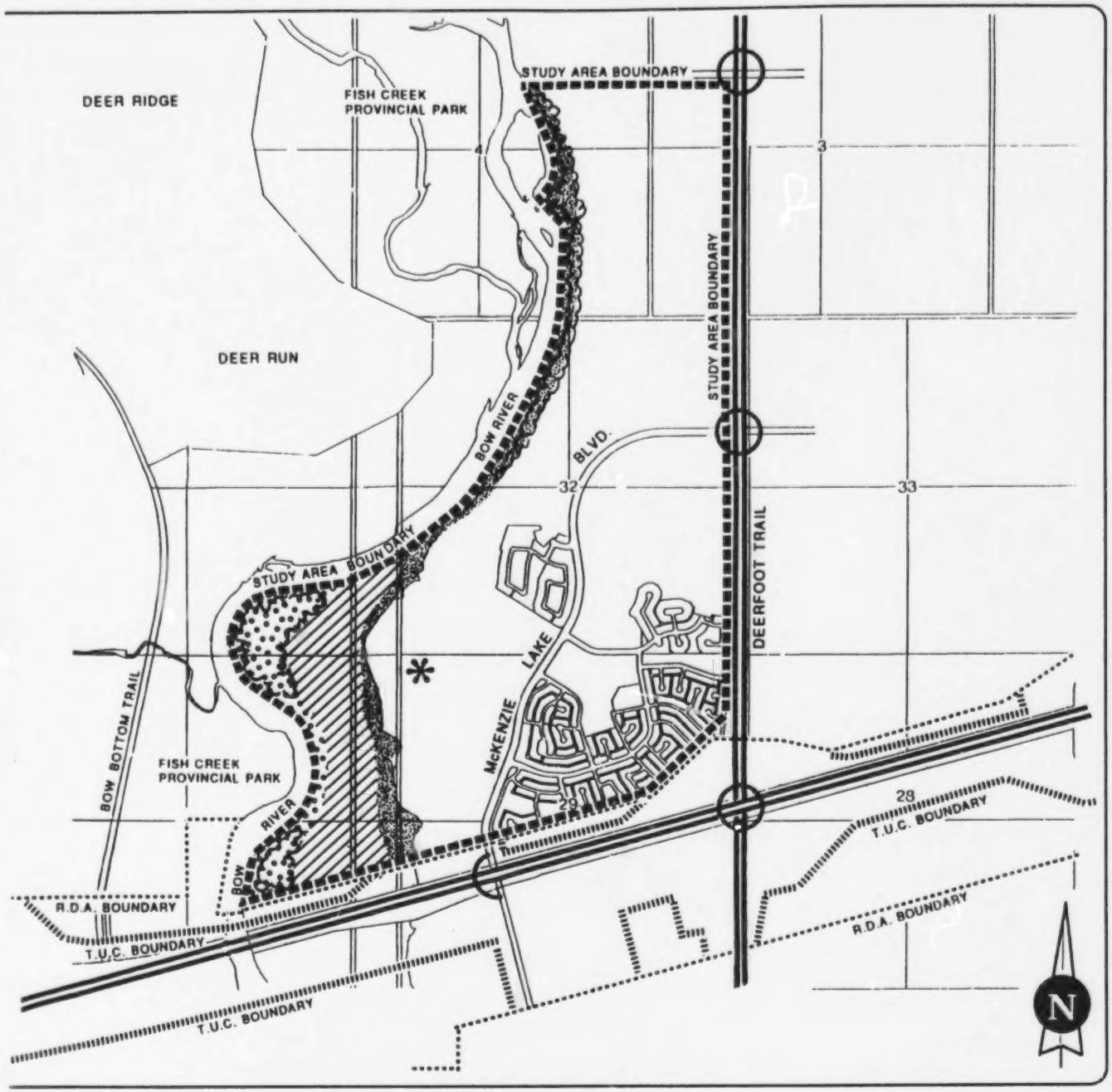
A glacial erratic, located on the southern portion of the benchland area, merits preservation.

3.1 EXISTING CONDITIONS

3.1.1 Existing Land Uses and Land Use Designations

Most of the undeveloped lands in the study area are utilized for farming, including cereal crop production and grazing. A gravel mining operation exists in the floodplain lands, and is expected to terminate in the near future.

Apart from this use, a small farmstead is currently located on a portion of the northwest quarter of Section 32.



McKENZIE LAKE

MAP NO. 3

TITLE
NATURAL FEATURES

- FLOODWAY
- FLOODPLAIN
- SIGNIFICANT NATURAL VEGETATION
- BOW RIVER ESCARPMENT
- GLACIAL ERRATIC

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0 0.5 1.0km

The southeast portion of the study area is occupied by the developing McKenzie community, which began construction in 1980. The current development consists of low density single family housing, local commercial uses and open space. Currently, development is also taking place west of McKenzie Lake Boulevard.

The land use designations in the developing area are R-1 (Residential Single Detached District), R-2 (Residential Low Density District), PE (Public Park, School and Recreation District) and Direct Control District with guidelines for commercial, residential and recreational uses. The undeveloped area is designated UR (Urban Reserve District).

4.1 POLICY CONTEXT

4.1.1 Land Use Policy Context (Map 4)

Four planning documents have been approved by City Council for this and the surrounding areas:

(1) McKenzie Policy Statement and Area Structure Plan, 1979;

(2) Barlow Area Structure Plan, 1980;

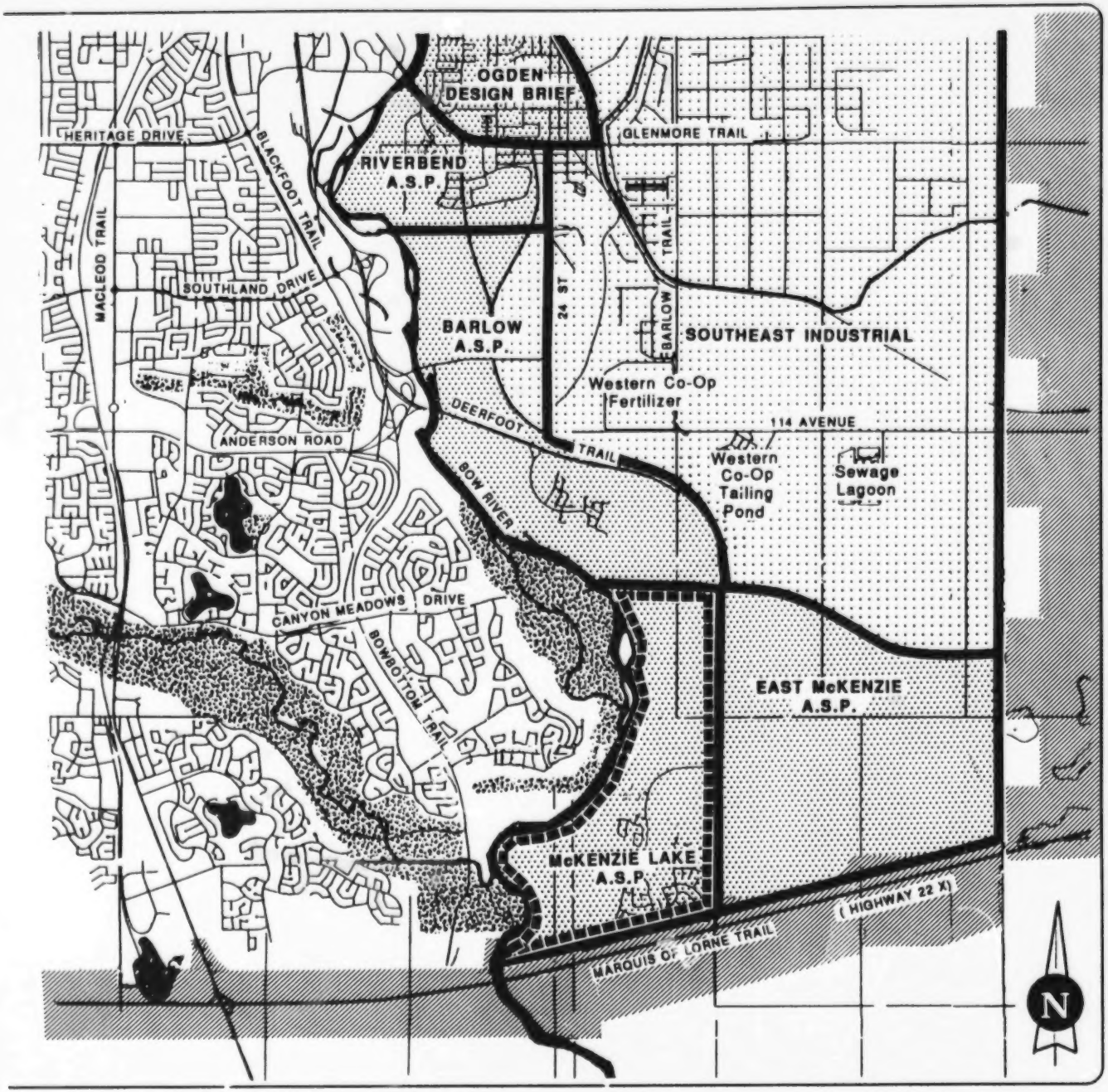
(3) East McKenzie Area Structure Plan, 1986; and

(4) Riverbend Area Structure Plan, 1979.

These plans propose residential as the predominant land use for these areas, except for a regional and a sector shopping centre in East McKenzie and a strip of land west of 24 Street S.E. allocated to industrial uses in Barlow and Riverbend A.S.P.'s.

The McKenzie Policy Statement and Area Structure Plan, 1979, was the first planning document adopted by Council for the study area. The more detailed planning and physical development of the community was based upon this document.

The current plan is a revision of this document to reflect actual and approved development since 1980, as well as changes to the land use policy, particularly with regard to the provision of a private recreation site.



McKENZIE LAKE

MAP NO. 4

TITLE
PLANNING CONTEXT

- RESIDENTIAL
- INDUSTRIAL
- RESTRICTED DEVELOPMENT AREA
- STUDY AREA BOUNDARY

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0 0.5 1.0 2.0 3km

4.1.2 Transportation Network (Map 5)

The regional transportation network in the general area consists of the following major corridors:

(1) Deerfoot Trail

Deerfoot Trail forms the eastern boundary of the study area and is constructed as a four-lane, divided expressway. At the present time, at-grade intersections are located at 130 Avenue and 151 Avenue S.E. These intersections will be upgraded in the future to grade-separated interchanges, and the Deerfoot Trail will be extended south of Marquis of Lorne Trail to connect with Highway 2 at a location near De Winton.

(2) Marquis of Lorne Trail (Highway 22X)

Marquis of Lorne Trail is presently a two-lane, paved rural highway, and is located within the Transportation and Utility Corridor. The intersection of this road with the Deerfoot Trail may be upgraded in the future, at which time the present access to McKenzie Boulevard may be replaced by either a partial interchange or an overpass connecting to future development to the south.

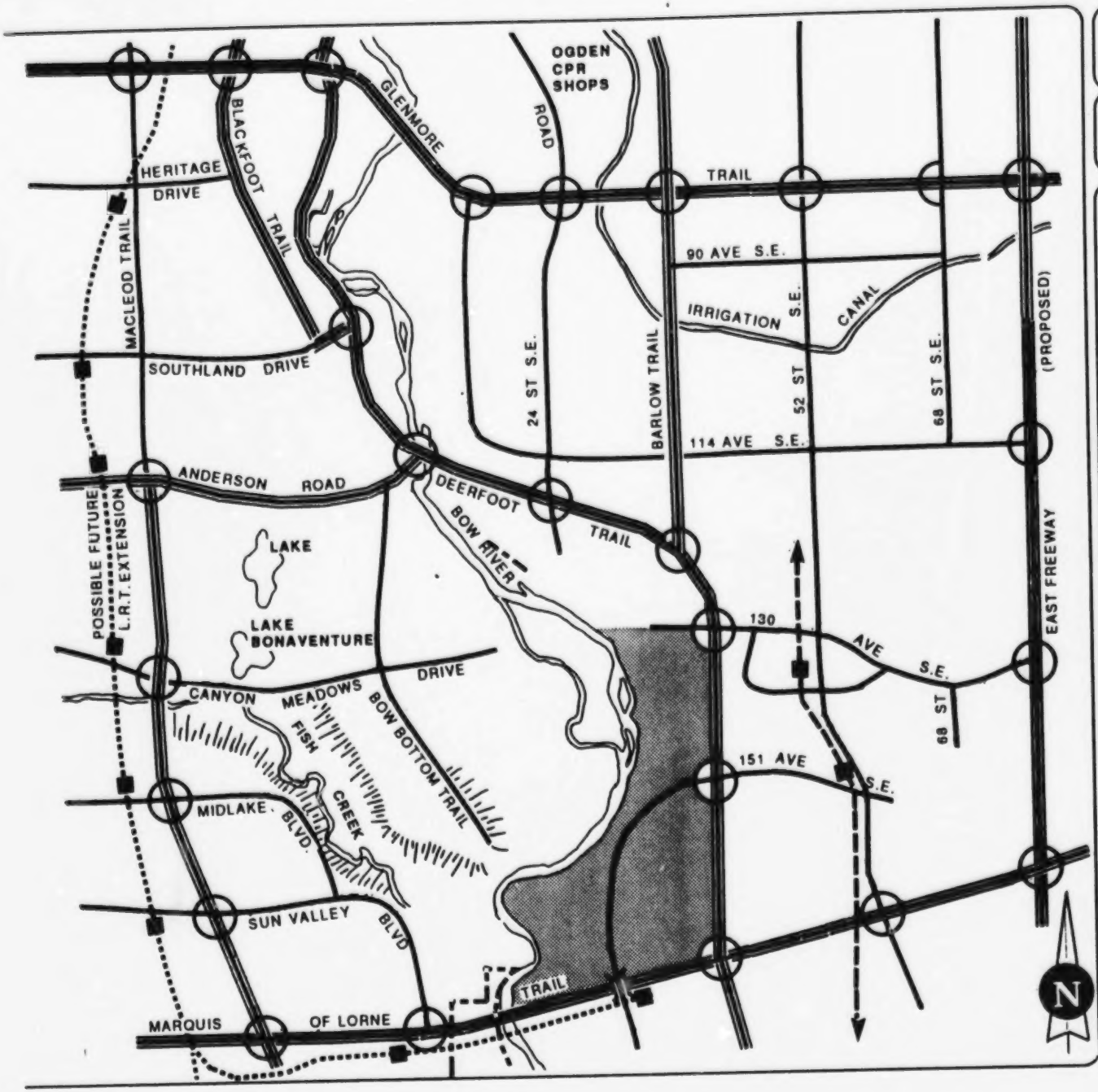
(3) McKenzie Boulevard

This is a major road extending from Marquis of Lorne Trail, through the study area to connect to the Deerfoot Trail at 151 Avenue S.E. The southerly extension of this road will connect to any development south of Marquis of Lorne Trail, and its extension east of the Deerfoot Trail will connect to East McKenzie.

(4) L.R.T.

Planning documents for the area south of Fish Creek have identified potential L.R.T. alignments that may serve McKenzie Lake. The south L.R.T. line may be extended south of the Anderson station along the C.P.R. right-of-way to the T.U.C., where it may be located south of Marquis of Lorne Trail and extended further in the easterly direction to serve Chaparral and McKenzie Lake. The right-of-way requirement for this alignment is protected by the R.D.A. regulation.

Another possible alignment is located roughly 1.6 kilometres (one mile) to the east of the study area, which will serve Calgary's southeast industrial area and East McKenzie. Bus service in the study area may then connect to one of the East McKenzie L.R.T. stations.



McKENZIE LAKE

MAP NO. 5

TITLE: THE REGIONAL TRANSPORTATION PLAN

- FREEWAY/EXPRESSWAY
- MAJOR ROAD
- GRADE-SEPARATED INTERCHANGE
- SOUTH L.R.T. ROUTE
- POSSIBLE SOUTHEAST L.R.T. ROUTE
- STUDY AREA

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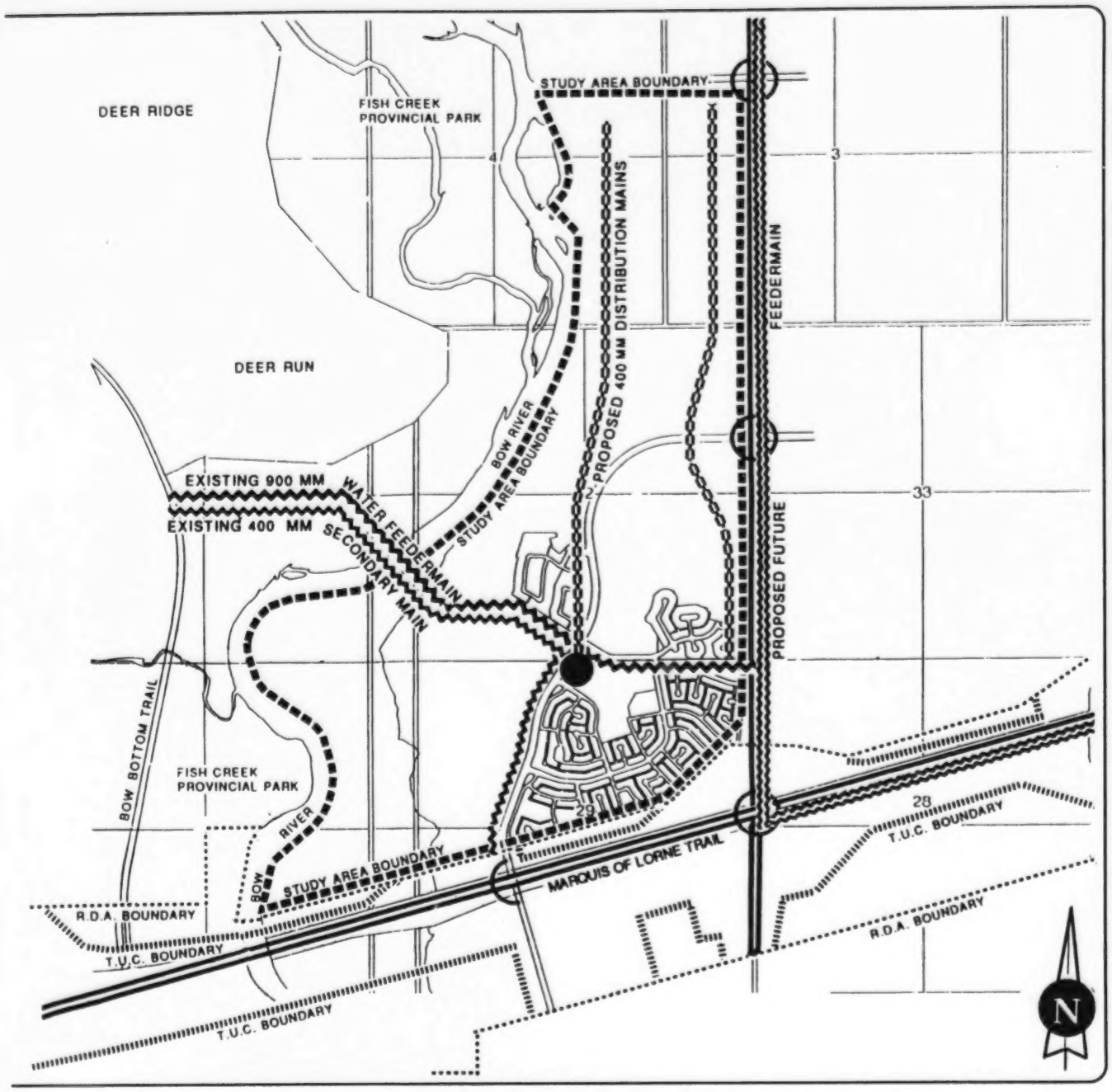
0 1.0 2.0km

5.1 SERVICING

5.1.1 Water Supply (Map 6)

The water supply to existing development in the study area is provided by a 400 mm and a 900 mm watermains. Future development can be serviced by extending these mains.

Long term plans for servicing the southeast sector includes the installation of a watermain along the eastern boundary of the study area to tie with the Barlow Sector main to the north and with the proposed 152 Street S.E. main to the east.



McKENZIE LAKE

MAP NO. 6

TITLE
WATER SUPPLY

- EXISTING 900 MM WATER FEEDERMAIN
- EXISTING 400 MM SECONDARY MAIN
- PROPOSED FUTURE WATER FEEDERMAIN
- EXISTING P.R.V. CHAMBER
- PROPOSED 400 MM DISTRIBUTION MAINS

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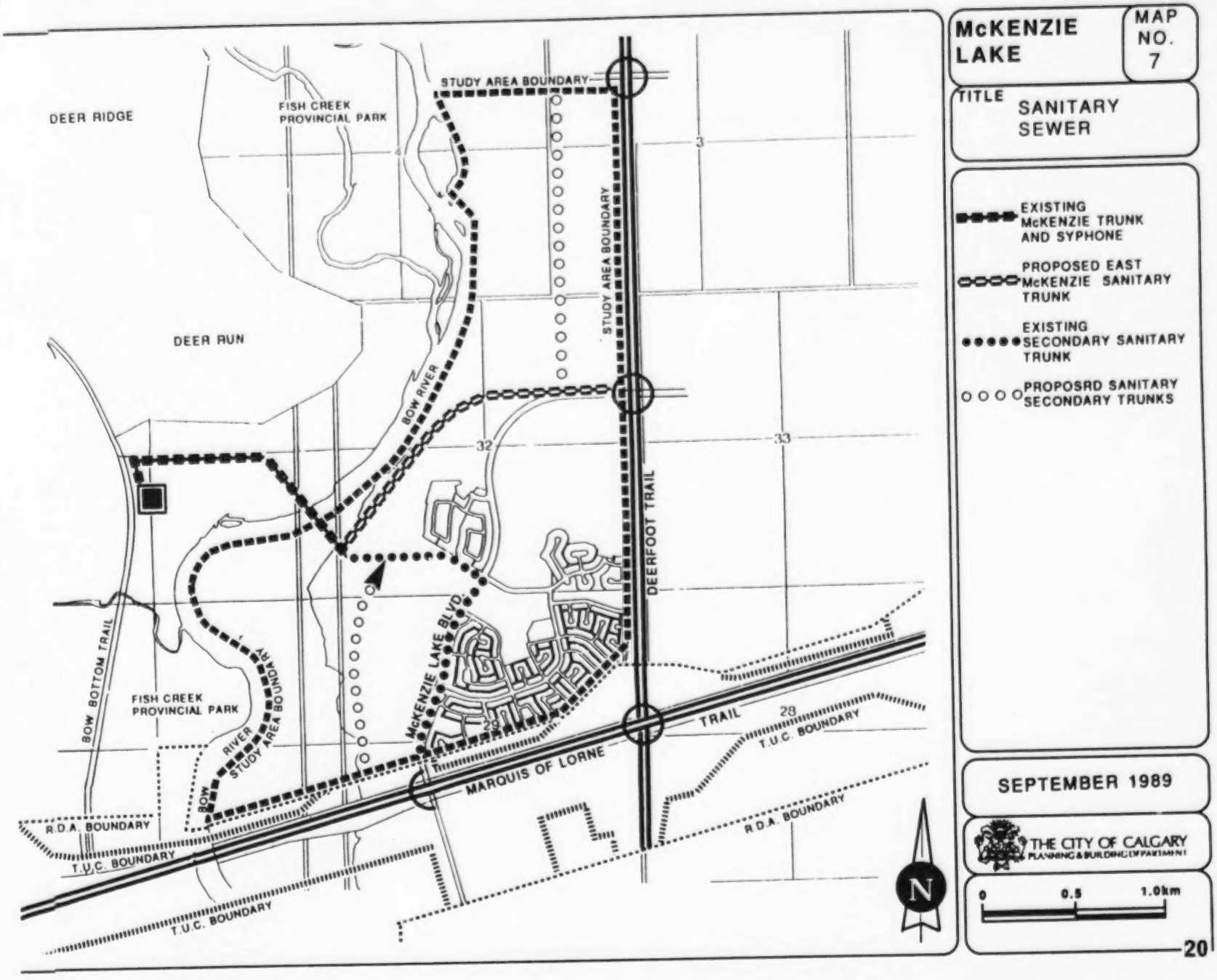
0 0.5 1.0km

5.1.2 Sanitary Sewer (Map 7)

The sanitary sewer service to the existing development is provided by a 450 mm trunk which connects to the McKenzie Trunk and drains to the Fish Creek Sewage Treatment Plant. Future development south of 151 Avenue S.E. alignment can be serviced by extending the existing trunks.

Development north of the 151 Avenue S.E. alignment will require the construction of the East McKenzie Sanitary Acreage Assessment Trunk, as shown in Map 7. A portion of this trunk has been installed under the Deerfoot Trail during its construction, and another portion of its right-of-way within the study area has been acquired. It is anticipated that this trunk will also service lands east of Deerfoot Trail and south of Marquis of Lorne Trail. Alternate schemes for sanitary sewer service must be approved by the City Engineer.



McKENZIE LAKE

MAP NO. 7

TITLE
SANITARY SEWER

- EXISTING McKENZIE TRUNK AND SYPHONE
- PROPOSED EAST McKENZIE SANITARY TRUNK
- EXISTING SECONDARY SANITARY TRUNK
- PROPOSRD SANITARY SECONDARY TRUNKS

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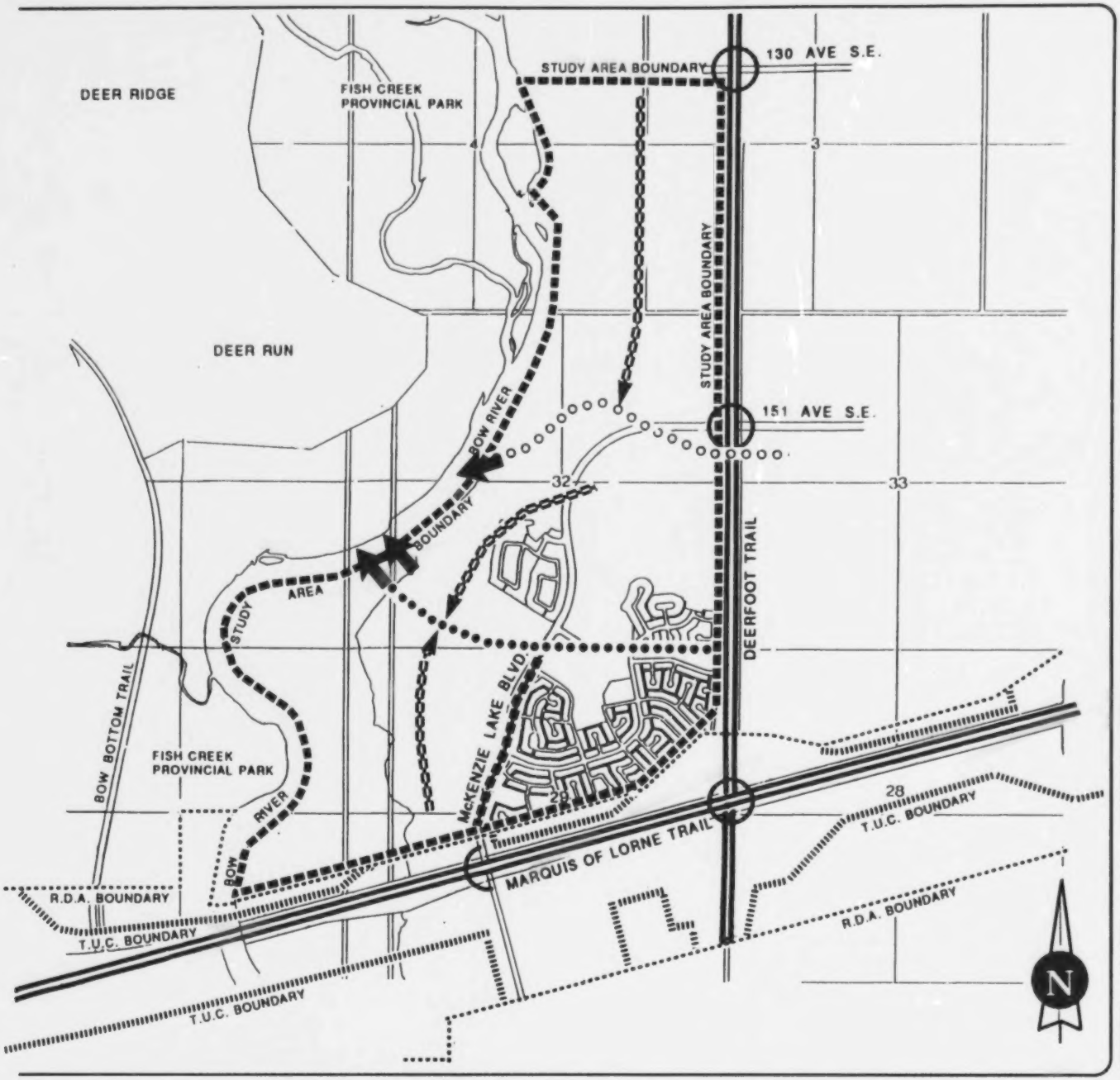
5.1.3 Storm Sewer (Map 8)

Existing development is serviced by a 1,650 mm storm water trunk and an outfall to the Bow River. This trunk has sufficient capacity to service future development south of the 151 Avenue S.E. alignment.

Development of lands north of the 151 Avenue S.E. alignment will require the installation of an acreage assessment storm trunk and an additional outfall to the Bow River. A portion of this trunk has been also installed under the Deerfoot Trail, and another portion of its right-of-way within the study area is protected by an easement. Lands to the east of Deerfoot Trail can be serviced by this trunk. Alternate schemes for storm sewer service must be approved by the City Engineer.



McKENZIE LAKE

MAP NO. 8

TITLE

STORM SEWER

- EXISTING STORM TRUNK
- EXISTING SECONDARY STORM TRUNK
- PROPOSED EAST McKENZIE STORM TRUNK
- PROPOSED SECONDARY STORM TRUNKS
- STORM OUTFALL

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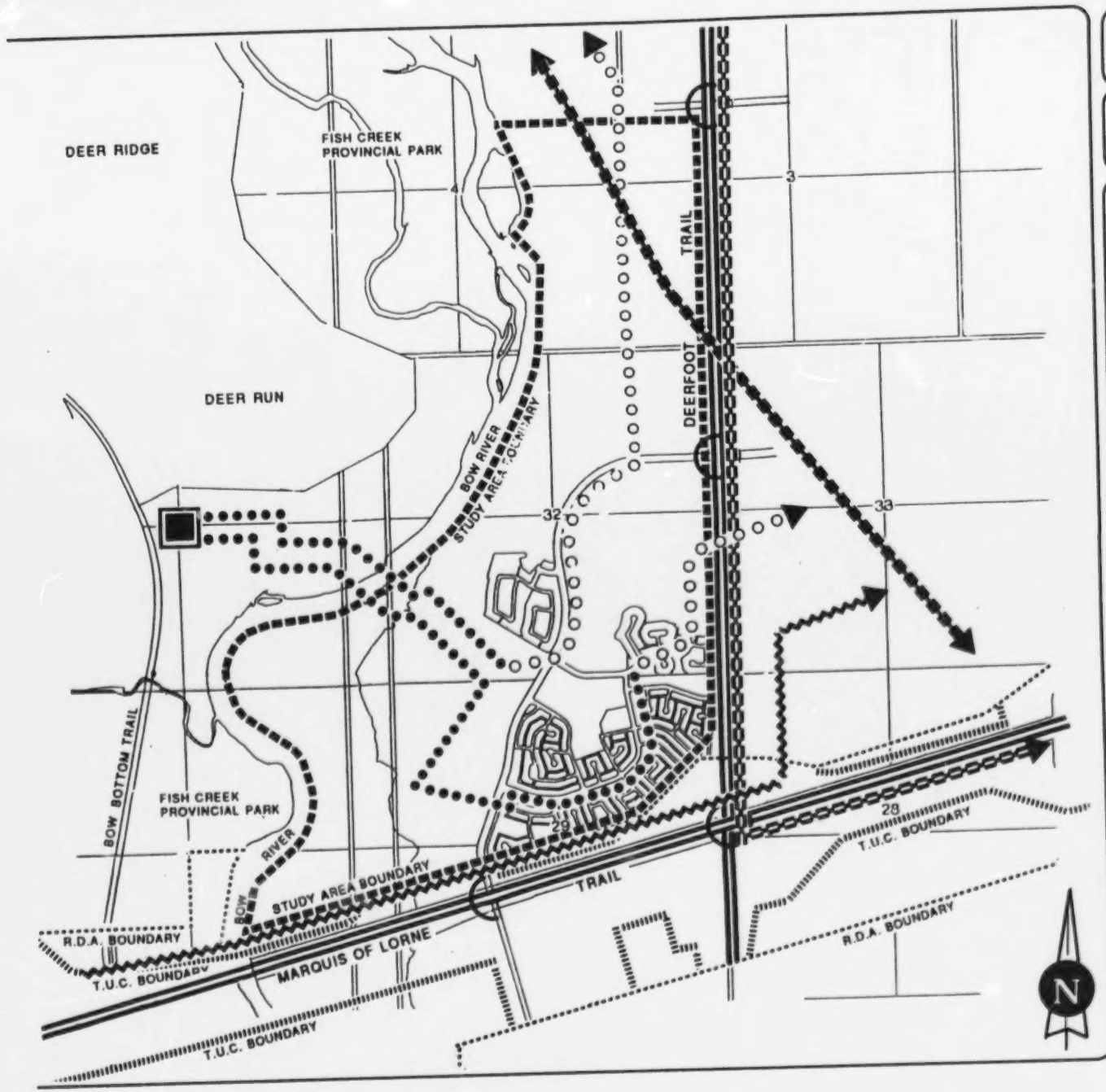
0 0.5 1.0km

5.1.4 Electrical Service (Map 9)

Two 13.2 kV electrical feeder lines provide service to the existing development; and their extensions will service the balance of Lake McKenzie.

Presently, 138 kV and 13.2 kV transmission lines are located in the northeastern portion of the study area. It is proposed that these lines be relocated to the east of the Deerfoot Trail.

A 13.2 kV overhead feeder is also proposed along the north side of Marquis of Lorne Trail within the T.U.C. This line is intended to service development east of the Deerfoot Trail.



McKENZIE LAKE

MAP NO. 9

TITLE

ELECTRICAL SERVICE

- EXISTING 138kV
- PROPOSED 138kV
- EXPRESS 13.2 kV FEEDER
- EXISTING 13.2 kV FEEDER
- PROPOSED 13.2 kV FEEDER
- EXISTING ELECTRIC SUB STATION

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0 0.5 1.0km

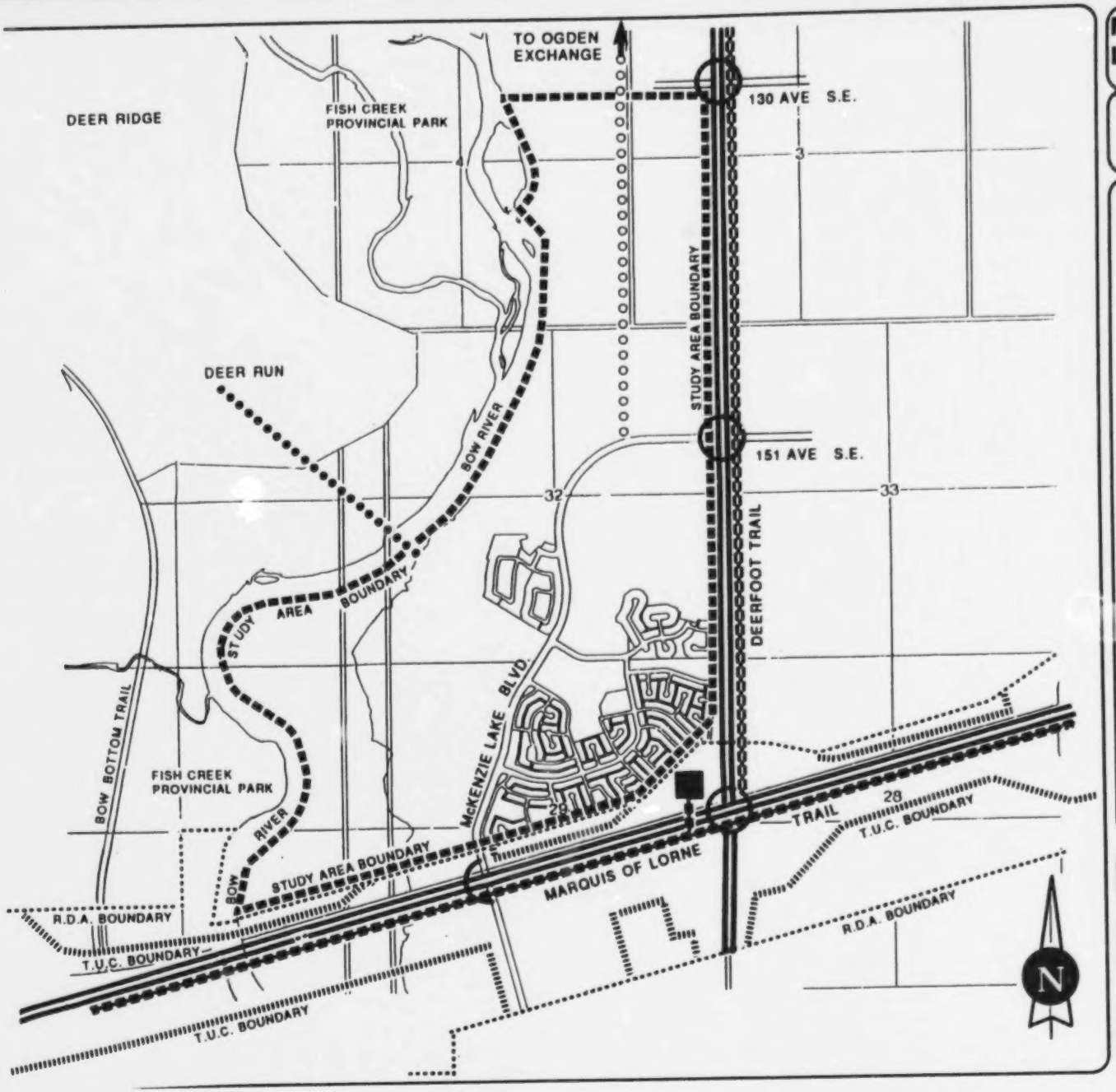
5.1.5 Natural Gas and Telephone (Map 10)

The high pressure gas line currently located in the T.U.C. and the temporary gas regulator at the southeastern corner of the study area supply the existing development with natural gas. Development in the balance of McKenzie Lake will require extensions of the existing gas lines and a permanent regulator station.

A feeder main is also proposed along the Deerfoot Trail alignment to serve future development north of McKenzie Lake.

Telephone service is provided to existing development by an underground conduit connecting to the west of the study area. Extension of this conduit will service the remainder of Lake McKenzie. Another link may connect the area to the Ogden exchange to the north.

The temporary telephone exchange currently located on the west side of the Deerfoot Trail will be replaced by a permanent structure.



McKENZIE LAKE

MAP NO. 10

TITLE

NATURAL GAS & TELEPHONE

NATURAL GAS

- EXISTING TEMPORARY REGULATION STATION
- EXISTING HIGH PRESSURE LINE
- PROPOSED HIGH PRESSURE LINE

TELEPHONE

- EXISTING TELEPHONE CONDUIT
- PROPOSED TRUNK

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0 0.5 1.0km

6.1 COMMUNITY SERVICES

6.1.1 Police Service

Police protection is currently provided to residents of McKenzie Lake by Police District Office #6, located at 8325 Bonaventure Drive S.E.

6.1.2 Fire Protection

Fire protection is currently provided to the study area from Station #26 at 271 Midpark Boulevard. Back up protection is provided from Station #9 at 2515 - 78 Avenue S.E. and/or from Station #25 at 4705 - 76 Avenue S.E. The Fire Department may choose to locate another station site within the study area, possibly along McKenzie Lake Boulevard, to service this community and future development in the surrounding areas.

6.1.3 Library Service

The Calgary Public Library Board is currently evaluating future city-wide needs for library branches. The results of this evaluation will provide a basis for identifying possible future locations in various parts of the city, which may affect the service available to McKenzie Lake residents.

At present, the nearest library is the Fish Creek Area Library, located at 11161 Bonaventure Drive S.E.

6.1.4 Social Services

Municipal social services will be provided to McKenzie Lake by the City of Calgary Social Services Department's Heritage Square Area Office at 8500 Macleod Trail S.E. The services include youth probation, community social work and child care consultation.

Provincial social services will be provided to this area by the Alberta Social Services' Willow Park District Office at 10325 Bonaventure Drive S.E.

Future social service needs will be monitored by the City and may require another municipal area office and additional staff to serve Calgary's southern communities.

6.1.5 Public Health Services

The McKenzie Lake residents are currently served by the Midnapore District Office at 240 Midpark Way S.E. The nearest hospital is the Rockyview General Hospital, approximately 14 kilometers (9 miles) from the study area.

Another hospital may possibly be located in the vicinity of Shawnessy Centre.